



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,743	10/19/2001	Roland Bernard	Q66747	6128

7590 10/24/2005

SUGHRUE, MION, ZINN,
MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

RIVELL, JOHN A

ART UNIT	PAPER NUMBER
----------	--------------

3753

DATE MAILED: 10/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/981,743	Applicant(s) BERNARD ET AL.	
	Examiner John Rivell	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/12/05 (amendment).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-23 and 27 is/are rejected.
- 7) ☒ Claim(s) 24-26, 28 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's arguments filed August 12, 2005 have been fully considered but they are not persuasive.

Claims 1-20 have been canceled. Claims 21-29 are pending.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 21-23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reimer et al. (EP 1 014 427) in view of Curwen.

The European document to Reimer et al. discloses, in figure 2, an "apparatus for conditioning the atmosphere in a vacuum chamber (120), said apparatus comprising: a vacuum line (120, 182, 160, 185, 170a, 160, 175a, respectively) including said vacuum chamber (120) and comprising a pumping apparatus (high vacuum pump 160 or pre vacuum pump 165a) including at least a primary pump (read on either pump 160 or 165a); and isolation means (in general, i.e. the reduction of mechanical vibration as discloses at page 8, lines 27-28)... enabling the disturbance caused by the pumping apparatus to the vacuum chamber to be reduced" as recited.

Thus Reimer et al. discloses all the claimed features with the exception of having the "isolation means" of equivalence to that disclosed in the instant application and "comprising an isolation enclosure enclosing said primary pump".

The patent to Curwen discloses that it is known in the art to employ, on a vibration generating machine such as a compressor (which is nothing more than a pump), an "isolation means" such as the outlet pipe 34 acting as a sensor to detect vibrations generated by the compressor, and a vibration generating element at weight 38 which generates vibrations, opposite in phase to vibrations generated by the pump, all enclosed by an "enclosure" at casing 10 for the purpose of reducing or isolating the remainder of the system from vibrations generated by the pump. This "isolation means" is considered to be the "equivalents" necessitated by the means-plus-function language warranted by the recitation "isolation means" in the claims.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Reimer et al. a mechanical "isolation means" in the form of a weight attached to the conduits connected to the pump(s) to generate vibrations, opposite in phase, to the vibration generated by the pump therein, all enclosed by an enclosure for the purpose of isolating or reducing the transmission of vibration transmitted to the remainder of the system from the vibration generating mechanics such as the pump as recognized by Curwen.

Regarding claim 22, in Reimer et al., "the pumping apparatus (pre vacuum pump 165a or the high vacuum pump 160) is disposed in the immediate vicinity of the vacuum chamber (120)" as recited.

Regarding claim 23, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Reimer et al. an enclosure about the pump 165a and to include within the enclosure an active vibration damping

system for the purpose of protecting the pump and to actively reduce or eliminate vibration caused by the pump apparatus as recognized by Curwen. This would thus make the high vacuum pump read as the “upstream secondary pump”

Regarding claim 27, in Curwen, “the isolation means includes active vibration-compensating means (at weight 38) for compensating the mechanical vibrations generated by the contents (e.g. pump) of the isolation enclosure (12)” as recited.

Regarding applicants arguments concerning the above, the argument that the large volume of the resilient circuit and mass of Curwen preclude the device from being “located near the process chamber” presumes that one necessarily incorporates the structural elements of the “isolation means” of Curwen into the apparatus of Reimer. In response, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Within the confines of the teachings of Reimer one is clearly taught to locate the pump(s) “near the process chamber” and in fact, as shown, high pressure pump 160 is perhaps as close to the vacuum chamber 120 as one could get. The device of Curwen is not relied on to suggest the closeness of the pump to the device serviced by the pump. Rather, Curwen is relied on to illustrate that it is known in the art of pumps to employ an “isolation means” such as the outlet pipe 34 acting as a sensor to detect vibrations generated by the compressor, and a vibration generating element at weight 38 which generates vibrations, opposite in phase to vibrations generated by the pump, all enclosed by an “enclosure” at casing 10 for the purpose of

reducing or isolating the remainder of the system from vibrations generated by the pump.

The argument that Curwen does not disclose "an enclosure" is responded to by applicants own arguments in discussing the teachings of Curwen. Specifically, applicant points out that:

"Curwen describes a vibration isolation system including a frame for supporting a machine (i.e., compressor assembly 20) relative to ground, the frame comprising an outer casing 10 enclosing the machine 20 (see Curwen at col. 4, lines 34-36 and claim 8). Further, the vibration isolation means comprise a resilient conduit acting as a suspension system, such as a helical discharge tube 34 (see Curwen at col. 4, lines 51-56), which is coupled between the machine and a base, such as the casing 10, and a counterbalance mass 38 positioned on the resilient conduit".

Clearly applicant points out that Curwen includes a casing enclosing the pump. As recited in the claims, and as previously argued, the "isolation means" in means-plus-function language, encompasses equivalents to the structure disclosed by applicant. Since applicant has disclosed no specific equivalent structure, the "means" as discussed above in Curwen is deemed equivalent to the claimed "means".

Applicants arguments fail to specifically point out any structural detail claimed that is not present in the combination of references as set forth above.

Claims 24, 25, 26, 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within


Art Unit: 3753

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (571) 272-4930. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Rivell
Primary Examiner
Art Unit 3753

j.r.